IN THE SPECIFICATION

Please amend the specification as indicated below.

At page 8, replace the paragraph beginning at line 36 with the following paragraph:

Figures 4A and 4B set ~~Figure 4 sets~~ forth results demonstrating the production of hydroxylated recombinant gelatins.

At page 9, replace the paragraph beginning at line 6 with the following paragraph:

Figures 6A, 6B, and 6C set ~~Figure 6 sets~~ forth results showing the stability of recombinant gelatins expressed in the presence or absence of prolyl 4-hydroxylase.

At page 9, replace the paragraph beginning at line 9 with the following paragraph:

Figures 7A and 7B set ~~Figure 7 sets~~ forth results demonstrating enhanced recombinant gelatin expression by supplementation of expression media.

At page 31, replace the paragraph beginning at line 27 with the following paragraph:

The present invention provides recombinant gelatins of uniform molecular weight or specified ranges of molecular weights, removing variability and unpredictability, and allowing for fine-tuning of processes and predictable behavior. The present methods allow for ~~fro~~ the production of recombinant gelatins of any desired molecular weight or range of molecular weights. For example, in one embodiment, the recombinant gelatin has a molecular weight greater than 300 kDa. In another embodiment, the recombinant gelatin has a molecular weight range of from about 150 to 250 kDa, or of from about 250 to 350 kDa. Other molecular weight ranges are specifically contemplated, including, but not limited to, the following molecular weight ranges: about 0 to 50 kDa, about 50 to 100 kDa, about 100 to 150 kDa, about 150 to 200 kDa, about 200 to 250 kDa, about 250 to 300 kDa, and about 300 to 350 kDa.

At page 60, replace the paragraph beginning at line 10 with the following paragraph:

Endotoxin levels of commercial materials typically range from about 1.0 to 1.5 EU/mg of gelatin. (See, e.g., ~~Schaegger~~ Schagger, H. and G. von Jagow (1987) Anal. Biochem. 166:368-379; Friberger, P. et al. (1987) ~~in "Detection of Bacterial Endotoxins with the Limulus Amoebocyte Lysate Test,"~~ Prog. Clin. Biol. Res. 231:149-169.) In the methods of the present invention, the endotoxin levels can be reduced by two to three orders of magnitude. (See Example 8.) The

present invention thus provides, in one embodiment, a recombinant gelatin derived from human sources that is virtually endotoxin-free.

At page 79, replace the paragraph beginning at line 12 with the following paragraph:

A 1048 bp Cel II-AgeI fragment was isolated from pDO7 which contained the 3' portion of the AOX1 promoter region, the mating factor alpha secretion signal, the recombinant gelatin of SEQ ID NO:19, the polylinker sequence from pPICZαA, and 56 base pairs of the AOX1 transcription terminator. This fragment was ligated into the Cel II-AgeI sites of pPIC9K (Invitrogen) to create pDO41. *Pichia pastoris* strain αβ8 (*his4*) was transformed with StuI-linearized plasmid pDO41 by electroporation, plated on minimal dextrose plates, and transformants were selected that complemented the *his4* auxotrophy. Approximately 20 his^+ transformants were grown and induced with methanol as described in Example 1. Strains that expressed SEQ ID NO:19 were identified by SDS-PAGE analysis of the conditioned media. (Figures 4A and 4B~~Figure 4~~.)

At page 79, replace the paragraph beginning at line 23 with the following paragraph:

Recombinant gelatin fragments from positive strains were purified from the media by acetone precipitation, and analyzed further by amino acid analysis, as described, e.g., in Hare, PE. (1977) Methods in Enzymology 47:3-18. Amino acid analysis of the gelatin product from one of the strains demonstrated the presence of hydroxyproline in the secreted recombinant gelatins. The ratio of hydroxyproline to proline was determined to be 0.29 in gelatin isolated from the strain shown in shown in Figures 4A and 4B ~~Figure 4~~, isolate #2, indicating co-expression of gelatin and prolyl 4-hydroxylase.~~.~~

At page 80, replace the paragraph beginning on line 36 with the following paragraph:

An 18 kDa recombinant gelatin (SEQ ID NO:20) was expressed according to the methods described above. The expressed fragments were analyzed by gel electrophoresis. Recombinant gelatin expressed in the presence of prolyl 4-hydroxylase had markedly greater stability than the gelatin expressed in the absence of prolyl 4-hydroxylase. (See Figures 6A, 6B, and 6C ~~Figure 6~~.)

At page 81, replace the paragraph beginning on line 17 with the following paragraph:

Transformants were selected by resistance to 500 μg/ml zeocin. Eight isolates from each transformation were grown and induced as described, and the stability of the expressed recombinant human gelatin was analyzed by SDS-PAGE. (See Figures 6A, 6B, and 6C ~~Figure 6~~.) In wild-type *Pichia pastoris* strain X-33, approximately equimolar amounts of intact recombinant gelatin and a proteolytic fragment (which migrated just below the recombinant gelatin on the gel, indicated by the arrow at the right of the figure) were observed. (Figure 6A, strain X-33.) In both strains that co-express prolyl 4-hydroxylase, the amount of the proteolytic fragment was significantly reduced, demonstrating that co-expression of prolyl 4-hydroxylase along with recombinant human gelatin enhanced gelatin stability by substantially reducing

proteolysis of the gelatin. (Figures 6B and 6C ~~Figure 6~~, strain P4H-2 and strain αβ8, respectively.)

At page 81, please replace the paragraph beginning on line 30 with the following paragraph:

Previous reports have indicated that casamino acid-supplemented media decreased the amount of proteolysis seen during expression of certain proteins in *Pichia pastoris*. (Clare, J.J. et al. (1991) Gene 105:202-215.) The breakdown of the present recombinant human gelatin expressed in *Pichia pastoris* was measured following enrichment of the expression media with various supplements. In this particular study, the *Pichia pastoris* strain αβ8 described in Example 5, which expressed recombinant human gelatin fragment SEQ ID NO:20 was employed. (Example 5 and Table 2.) Recombinant gelatin was induced in media supplemented with a range of concentrations (0-2%) of various supplemental components, including casamino acids, casitone, yeast extract, peptone, peptamin, tryptone, Gelatone, lactalbumin, and soytone. Several formulations, including lactalbumin hydrolysate, soytone, casitone, and peptamin (Difco Laboratories, Detroit, MI) increased recombinant gelatin expression levels. (Figures 7A and 7B ~~Figure 7~~, lactalbumin and soytone, respectively.)